

## Exhibit 300: Capital Asset Summary

### Part I: Summary Information And Justification (All Capital Assets)

#### Section A: Overview & Summary Information

**Date Investment First Submitted:** 2009-06-30  
**Date of Last Change to Activities:** 2012-07-30  
**Investment Auto Submission Date:** 2012-02-28  
**Date of Last Investment Detail Update:** 2012-06-29  
**Date of Last Exhibit 300A Update:** 2012-06-29  
**Date of Last Revision:** 2012-08-16

**Agency:** 006 - Department of Commerce      **Bureau:** 48 - National Oceanic and Atmospheric Administration

**Investment Part Code:** 01

**Investment Category:** 00 - Agency Investments

**1. Name of this Investment:** NOAA/NESDIS/ Joint Polar Satellite System (JPSS) Ground System (formerly NPOESS Ground System)

**2. Unique Investment Identifier (Ull):** 006-000321200

#### Section B: Investment Detail

- 1. Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.**

The Joint Polar Satellite System (JPSS) is the Nation's next generation polar-orbiting operational environmental satellite system. JPSS will provide operational continuity of satellite-based observations and products for NOAA Polar-orbiting Operational Environmental Satellites (POES) and the Suomi National Polar-orbiting Partnership (NPP) mission in the afternoon orbit. The first JPSS spacecraft, JPSS-1, will take advantage of technologies developed through the Suomi NPP satellite, which was launched on October 28, 2011. The JPSS payload of scientific instruments includes: Visible/Infrared Imager/Radiometer Suite (VIIRS), Cross-track Infrared Sounder (CrIS), Advanced Technology Microwave Sounder (ATMS), Ozone Mapping and Profiler Suite Nadir (OMPS-Nadir), Cloud and Earth Radiant Energy System (CERES), and Total Solar Irradiance Sensor (TSIS). The JPSS ground system provides command, control, and communications (C3) and data/product processing and distribution. JPSS will provide continuity of critical observations for accurate weather forecasting, reliable severe storm outlooks, global measurements of atmospheric and oceanic conditions such as sea surface temperatures, ozone, and more. JPSS will also monitor rescue beacons to help save lives through the international SARSAT program and continue support for the French provided Advanced Data Collection System (ADCS). JPSS represents significant technological and scientific advances in environmental monitoring and will help

advance environmental, weather, climate, and oceanographic science. JPSS's primary user, NOAA's National Weather Service, will use the JPSS data in models for medium- and long-term weather forecasting. JPSS will allow scientists and forecasters to monitor and predict weather patterns with greater speed and accuracy and is key for continuity of long-standing climate measurements, allowing study of long-term climate trends. JPSS will improve and extend climate measurements for 30 different Environmental Data Records of the atmosphere, land, ocean, climate, and space environment. This investment is dependent on the NPP Data Exploitation/JPSS Data Exploitation investment for distribution of JPSS data and products to the NOAA user community and on the NOAA Comprehensive Large Array-data Stewardship System (CLASS) investment for archiving JPSS data and products.

**2. How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.**

JPSS provides polar mission continuity, following end-of-life for the NOAA POES and Suomi NPP missions. The POES satellites were initially designed and launched in the mid-1970s, with the last launch in the series, NOAA-19, in February 2009. With a design life of 45 months, NOAA-19 has an expected end-of-life of November 2012 (though historically the POES satellites have lasted longer than their design life). The successful launch of Suomi NPP on October 28, 2011 with a five-year design life ensures there will not be a gap in NOAA's polar mission delivery when NOAA-19 reaches end-of-life. JPSS-1 is planned to provide polar mission continuity at Suomi NPP end-of-life, November 2016; JPSS design life is seven years. Development of JPSS-1 has been delayed due to funding reductions and will not be launched until March 2017. NOAA anticipates a potential gap in mission delivery between the end of NPP and JPSS-1 full operational capability due to this reduction. To ensure there is not a gap at JPSS-1 end-of-life, JPSS-2 is planned to be launched in 2023. From the perspective of the JPSS primary user, NWS, the impact of any gap in mission delivery is a decrease in the user's expected speed and accuracy to monitor and predict weather patterns, resulting in a decrease in public safety and a negative impact on economic growth. Inadequate funding will increase the length of anticipated gaps and create additional gaps.

**3. Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.**

The major accomplishments in FY 11 were: - The JPSS GS put Block 1, for NPP, firmly in place for the early FY12 NPP Launch. Block 1 included Command, Control and Communications System (C3S) Software (Blocks 1.4.9, 1.4.9.1, 1.4.9.2, 1.4.10.1, 1.4.10.2, 1.4.10.3) and Interface Data Process System Software (Blocks 1.5.3.1, 1.5.4, 1.5.5) - Block 1.2 NPP pre-launch/near-term NPP post launch completed Block Content Review (BCR) and installed a Ka band receptor site at McMurdo, Antarctica for DMSP and METOP along with an upgrade to the CGS for METOP operational data transmissions to Darmstadt, Germany - Definitization of the Common Ground System contract in July 2011 - CGS received Authority to Operate for one year - JPSS GS delivered over 20 software releases prior to Suomi-NPP launch, certified over 1,500 products for operational use, closed over 4,300 work requests and conducted over 1,000 hours of testing in preparation for launch of the NASA/NOAA joint mission Suomi-NPP.

**4. Provide a list of planned accomplishments for current year (CY) and budget year (BY).**

Major accomplishments expected in FY12 (Current Year) are: An Integrated Baseline Review (IBR) was conducted. The results of the IBR are currently under review for dissemination. Upon final resolution of the IBR, the following products are expected: a. Project Plan b. Performance Plan /budgetary resources and status reporting c. Earned Value Management Data d. Complete BCR to request corrections to the E-300 to align the resource summary, project table, master cost & schedule table GCOM A reaches full operational capability (FOC) The GS Block 1.5, Operationalizing NPP and technical refresh, will complete its BCR and Systems Readiness Review/System Design Review (SRR/SDR) Block 2.0, JPSS-1, will complete a delta SRR Major accomplishments expected in FY13 (Budget Year) are: The GS Block 1.5, Operationalizing NPP and technical refresh, will complete its PDR/CDR Block 1.2, NPP pre-launch/near-term NPP post launch, will deliver 1.4.11 and 1.5.6 Software, install another receptor site at McMurdo, Antarctica and Systems Acceptance Test (SAT) and almost complete implementation.

**5. Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.**

2009-03-16

## Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

Table I.C.1 Summary of Funding

	PY-1 & Prior	PY 2011	CY 2012	BY 2013
Planning Costs:	\$0.0	\$0.0	\$0.0	\$0.0
DME (Excluding Planning) Costs:	\$616.0	\$157.1	\$151.8	\$142.8
DME (Including Planning) Govt. FTEs:	\$7.3	\$1.8	\$1.8	\$1.9
Sub-Total DME (Including Govt. FTE):	\$623.3	\$158.9	\$153.6	\$144.7
O & M Costs:	\$0.0	\$0.0	\$0.0	\$0.0
O & M Govt. FTEs:	\$0.0	\$0.0	\$0.0	\$0.0
Sub-Total O & M Costs (Including Govt. FTE):	0	0	0	0
Total Cost (Including Govt. FTE):	\$623.3	\$158.9	\$153.6	\$144.7
Total Govt. FTE costs:	\$7.3	\$1.8	\$1.8	\$1.9
# of FTE rep by costs:	33	9	9	9
Total change from prior year final President's Budget (\$)		\$158.9	\$153.6	
Total change from prior year final President's Budget (%)		0.00%	0.00%	

**2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:**

Funding through FY10 represents the 50-50 split between NOAA & DoD. For FY11 forward, funding will be NOAA only.

## Section D: Acquisition/Contract Strategy (All Capital Assets)

Table I.D.1 Contracts and Acquisition Strategy

Contract Type	EVM Required	Contracting Agency ID	Procurement Instrument Identifier (PIID)	Indefinite Delivery Vehicle (IDV) Reference ID	IDV Agency ID	Solicitation ID	Ultimate Contract Value (\$M)	Type	PBSA ?	Effective Date	Actual or Expected End Date
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Awarded

8000

[NNG10XA03C](#)

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

## Exhibit 300B: Performance Measurement Report

### Section A: General Information

**Date of Last Change to Activities:** 2012-07-30

### Section B: Project Execution Data

**Table II.B.1 Projects**

Project ID	Project Name	Project Description	Project Start Date	Project Completion Date	Project Lifecycle Cost (\$M)
3212D11001	NPOESS Preparatory Project	Block 1.0 NPP Initial Ground System.			
3212D12002	DMSP/METRO Project	Block 1.1 Integration of DMSP/METRO with Communication Backbone.			
3212D12003	Near-Term NPP Post-Launch Project	Block 1.2 Near-Term NPP Post-Launch.			
3212D12004	Operational NPP	Block 1.5 Operationalizing NPP.			
3212D12005	JPSS-1 Project	Block 2.0 JPSS-1 integration with the Ground System.			

### Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities (\$M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance (\$M)	Cost Variance (%)	Total Planned Cost (\$M)	Count of Activities
3212D11001	NPOESS Preparatory Project							
3212D12002	DMSP/METRO Project							

## Activity Summary

Roll-up of Information Provided in Lowest Level Child Activities

Project ID	Name	Total Cost of Project Activities (\$M)	End Point Schedule Variance (in days)	End Point Schedule Variance (%)	Cost Variance (\$M )	Cost Variance (%)	Total Planned Cost (\$M)	Count of Activities
3212D12003	Near-Term NPP Post-Launch Project							
3212D12004	Operational NPP							
3212D12005	JPSS-1 Project							

## Key Deliverables

Project Name	Activity Name	Description	Planned Completion Date	Projected Completion Date	Actual Completion Date	Duration (in days)	Schedule Variance (in days )	Schedule Variance (%)
3212D11001	NPP ORT	Operational Readiness Test.	2011-08-31	2011-08-31	2011-08-31	30	0	0.00%
3212D12002	McMurdo Ka Receptor 2 Install	Installation of Second Ka Receptor at McMurdo.	2011-12-31	2011-12-31	2011-12-31	91	0	0.00%
3212D12002	McMurdo Ka Receptor SAT	System Acceptance Test.	2012-02-29	2012-02-29	2012-02-29	59	0	0.00%
3212D12004	SRR/SDR	System Readiness Review/System Design Review.	2012-03-31	2012-08-31		59	-153	-259.32%



Section C: Operational Data

Table II.C.1 Performance Metrics								
Metric Description	Unit of Measure	FEA Performance Measurement Category Mapping	Measurement Condition	Baseline	Target for PY	Actual for PY	Target for CY	Reporting Frequency

NONE